

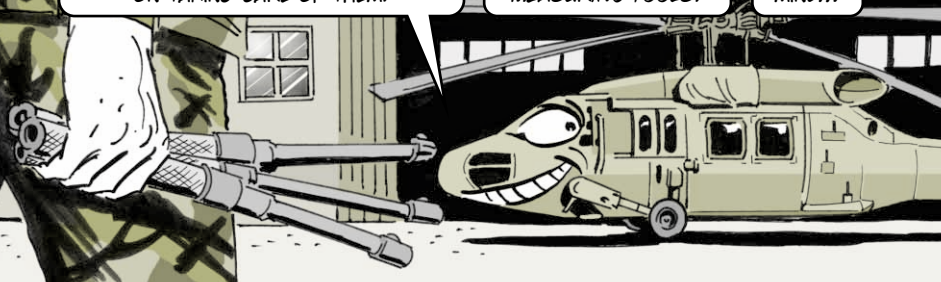
Tools...

# LET'S TALK TORQUE WRENCHES

KEEPING TORQUE WRENCHES UP TO SNUFF IS A TOUGH JOB. YOUR GENERAL AIRCRAFT MAINTENANCE MANUAL, TM 1-1500-204-23-9 HAS SOME INFO ON TAKING CARE OF THEM.

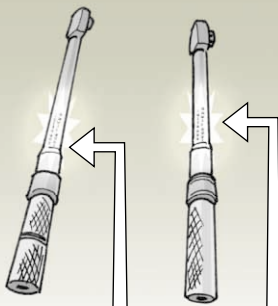
EVEN MORE INFO CAN BE FOUND IN TM 9-243, *USE AND CARE OF HAND TOOLS AND MEASURING TOOLS*.

PLUS, KEEP THESE POINTS IN MIND...



NOT ALL TORQUE WRENCHES ARE ALIKE. SOME TORQUE WRENCHES MAY LOOK THE SAME, BUT THEY CAN BE QUITE DIFFERENT.

IF A MAINTENANCE TASK REQUIRES TORQUE IN INCH-POUNDS, DON'T GRAB A FOOT-POUNDS WRENCH. EYEBALL THE WRENCH MARKINGS TO PICK THE CORRECT TOOL.



Check markings for foot-pounds...

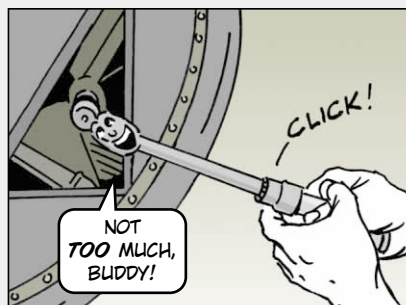
...or inch-pounds

REMEMBER THAT THE HIGH AND LOW READINGS OF A TORQUE WRENCH SCALE WILL NOT BE AS ACCURATE AS THE READINGS IN-BETWEEN. SO USE A WRENCH WHERE THE TORQUE YOU NEED FALLS IN THE MIDDLE TWO-THIRDS OF THE SCALE.

BEFORE YOU TORQUE, CLEAN ALL PARTS INVOLVED WITH DRY CLEANING SOLVENT. CLEAN THE THREADS OF THE FASTENER, THE MATING SURFACES AND THE HEAD OF THE WRENCH.



LUBRICATE A BOLT ONLY WHEN YOUR TM TELLS YOU TO LUBE IT. ONLY THREADS REDUCE RUN-UP FRICTION AND ALLOW OVERTORQUE.



TORQUE THE NUT, NOT THE BOLT, UNLESS YOUR TM TELLS YOU DIFFERENTLY, AND WHEN THE TORQUE IS REACHED, **STOP**.

SOMETIMES YOU **HAVE** TO TIGHTEN THE BOLT END—WHEN SPACE IS LIMITED, FOR INSTANCE. IN THAT CASE, ALWAYS TORQUE TO THE HIGH SIDE OF THE TORQUE RANGE. THAT'S BECAUSE YOU'VE ALREADY USED UP SOME TORQUE GETTING THE BOLT MOVING IN THE HOLE OR TO ALIGN PARTS.

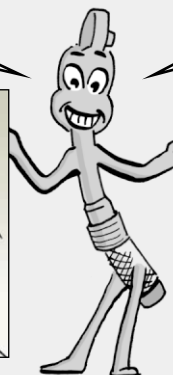
GETTING AN ACCURATE TORQUE MEANS GOING SLOW AND STEADY UNTIL YOU REACH THE REQUIRED TORQUE. HERKY-JERKY MOTIONS MAKE FOR BAD READINGS.

IF YOU THINK A READING IS BAD, BACK OFF THE NUT WITH A STANDARD WRENCH AND RETORQUE. NEVER USE A TORQUE WRENCH FOR LOOSENING. THAT'LL DAMAGE ITS CALIBRATION.



SEIZURES RUIN READINGS. DURING THE LAST FEW TURNS, JUST BEFORE YOU REACH THE TORQUE YOU WANT, YOU MIGHT HEAR A POPPING SOUND. IT MEANS THE FASTENER HAS STOPPED TURNING MOMENTARILY. SO BACK OFF THE FASTENER WITH A STANDARD WRENCH AND RETORQUE.

A TORQUE WRENCH IS **NOT** A HAMMER, SO DON'T USE IT LIKE ONE.



LIKewise, DON'T TOSS OR DROP THE WRENCH. ROUGH TREATMENT KO'S CALIBRATION.



ONCE YOU'VE FINISHED TORQUING ME, TAKE THE PRESSURE OFF MY BUDDY'S SPRING BEFORE YOU PUT HIM AWAY!



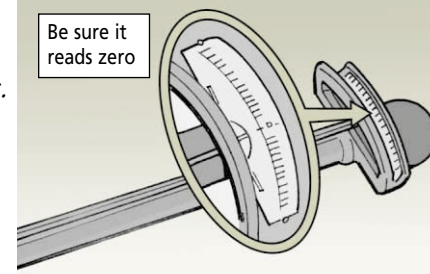
WHEN YOU FINISH A JOB, CHECK THE MANUFACTURER'S MANUAL THAT CAME WITH THE TORQUE WRENCH. IT SHOULD TELL YOU WHAT SETTING TO USE FOR STORING THE WRENCH.

IF YOU HAVE A BENDING-BEAM TORQUE WRENCH, JUST STOP TURNING AND REMOVE THE WRENCH. THE POINTER RETURNS TO ZERO. BE CAREFUL, THOUGH. THE POINTER IS NOT PROTECTED. IF YOU BEND OR DAMAGE IT, IT WON'T MAINTAIN CALIBRATION. THEN THE NEXT GUY WON'T BE ABLE TO USE THE WRENCH. IT MUST BE TURNED INTO YOUR LOCAL TMDE SHOP FOR CALIBRATION AND REPAIR.

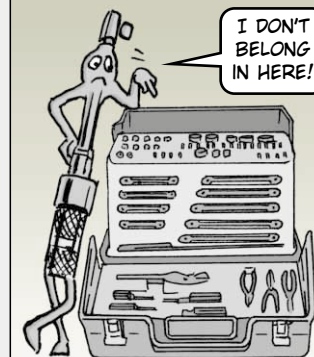
MICROMETER AND OTHER TORQUE WRENCHES CAN BE SET AT ZERO BEFORE STORAGE UNLESS YOUR TOOL ROOM SOP SAYS DIFFERENTLY.

SETTING THE READING TO ZERO TAKES PRESSURE OFF THE SPRING WHILE IT'S NOT IN USE. IF YOU LEAVE THE PRESSURE ON, THE CALIBRATED SPRING WILL STRETCH, WEAKEN, COLLAPSE OR LOSE TENSION. THAT CAN RUIN ITS ACCURACY.

Be sure it reads zero



FINALLY, STORE EACH WRENCH IN ITS OWN BOX. NEVER THROW ONE INTO A TOOL BOX WITH OTHER TOOLS. YOU'LL DAMAGE IT EVERY TIME.



QUESTIONS ABOUT **TMDE** CALIBRATION? CHECK WITH YOUR LOCAL **TMDE** COORDINATOR.

